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(54) Method and apparatus for checking continuity of leaf-to-root VLAN connections

(57) A virtual LAN (VLAN) has a number of segments connected by connections in a connection-oriented network (14). The topology of the VLAN is defined by a spanning tree. Cell sources (20) on the connections send continuity checking cells in a direction toward the

spanning tree root (16A) to corresponding cell sinks (22). The cell sinks can trigger a change in the topology of the VLAN if the reception of continuity checking cells is interrupted. The connection-oriented network may be an ATM network. The continuity checking cells may be OAM cells.

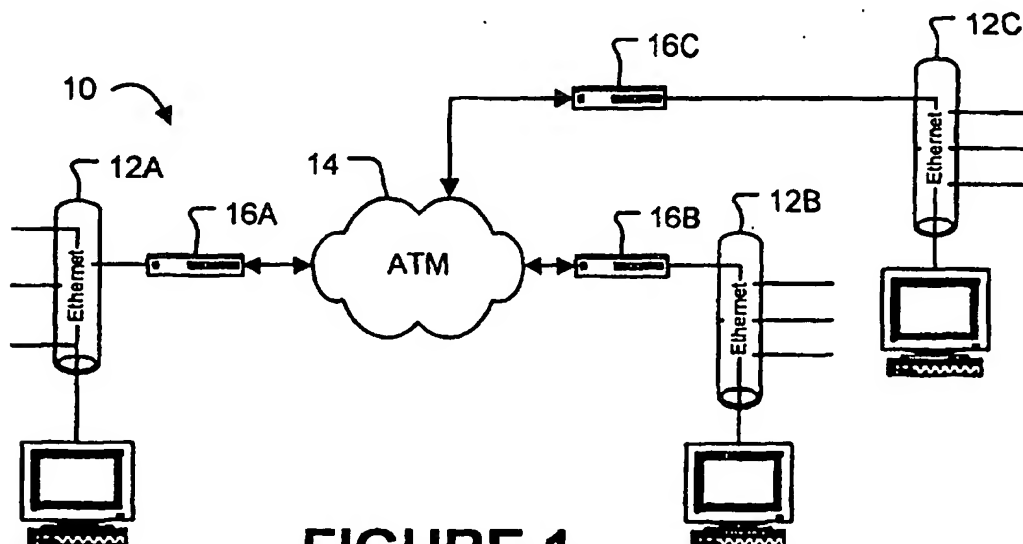


FIGURE 1



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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	EP 0 975 199 A (FORE SYSTEMS INC) 26 January 2000 (2000-01-26) * column 1, paragraph 1 - column 2, paragraph 12 *	1-36	H04L12/46 H04L12/26 H04L12/56
A,D	<p>---</p> <p>THE INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE): "VIRTUAL BRIDGED LOCAL AREA NETWORKS, IEEE STD 802.1Q-1998" IEEE STANDARDS FOR LOCAL AND METROPOLITAN AREA NETWORKS, [Online] 1998, pages i-199, XP002240505</p> <p>Retrieved from the Internet: <URL:http://standards.ieee.org/getieee802/download/802.1Q-1998.pdf> [retrieved on 2003-05-20] * abstract * * page III *</p> <p>---</p>	1-36	
A	<p>---</p> <p>THE INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS: "PART 5: REMOTE MEDIA ACCESS CONTROL (MAC) BRIDGING, ANSI/IEEE STD 802.1G, ISO/IEC 15802-5:1998(E)" IEEE STANDARDS FOR LOCAL AND METROPOLITAN AREA NETWORKS, [Online] pages i-221, XP002241252</p> <p>Retrieved from the Internet: <URL:http://standards.ieee.org/getieee802/download/802.1G-1998.pdf> [retrieved on 2003-05-20] * page 38, paragraph 10 - page 47, paragraph 5 * * page 103, paragraph 1 - paragraph 5 * * page 186, paragraph 1 - paragraph 9 *</p> <p>---</p> <p>-/--</p>	1-36	<p>TECHNICAL FIELDS SEARCHED (Int.Cl.7)</p> <p>H04L H04Q</p>
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 3 June 2003	Examiner García Bolos, R
CATEGORY OF CITED DOCUMENTS		<p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>	
<p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p>			



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Application Number
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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	<p>TELECOMMUNICATION STANDARDIZATION SECTOR OF ITU: "ITU-T Recommendation I.610" ITU-T TELECOMMUNICATION STANDARIZATION SECTOR OF ITU, GENEVA, CH, 1 November 1995 (1995-11-01), page COMPLETE50 XP002085435</p> <p>* page 15, paragraph 11 - page 16, paragraph 5 *</p> <p>* page 20, paragraph 13 - page 21, paragraph 8 *</p> <p>* page 23, paragraph 14 - page 25; figures 8,9; table 5 *</p> <p>-----</p>	1-36	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 3 June 2003	Examiner García Bolos, R
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone</p> <p>Y : particularly relevant if combined with another document of the same category</p> <p>A : technological background</p> <p>O : non-written disclosure</p> <p>P : intermediate document</p>		<p>T : theory or principle underlying the invention</p> <p>E : earlier patent document, but published on, or after the filing date</p> <p>D : document cited in the application</p> <p>L : document cited for other reasons</p> <p>.....</p> <p>Δ : member of the same patent family, corresponding document</p>	

